JAPANESE [JP,2000-078192,A]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE INVENTION TECHNICAL PROBLEM MEANS DESCRIPTION OF DRAWINGS DRAWINGS

[Translation done.]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]
[Claim 1] Two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which receives the information mail which specifies the address on the network of the user terminal of which it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, The step which accumulates said received information mail. and the step to which a call is applied to the user terminal as which the address on said network was specified, The push type information distribution approach characterized by having the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[Claim 2] The push type information distribution approach according to claim 1 characterized by for said two or more user terminals accessing said server equipment beforehand, and having the step which registers the address on each network into this server equipment as a registration procedure for receiving the data communications service which this server equipment offers.
[Claim 3] Two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which memorizes beforehand the information about the user terminal which receives the communications service which said server equipment offers. The step which receives the information mail supplied from said server equipment, and the step which accumulates said received information mail, The step to which a call is applied to the user terminal which corresponds based on the information about the user terminal which receives said communications service memorized beforehand, The push type information distribution approach characterized by having the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[Claim 4] Two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which matches and memorizes a user's attribute and the address on the network of a user terminal about each user, The step which receives the information mail which specifies the attribute of the user of whom it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, Matching with the step which accumulates said received information mail, and the attribute of said user who memorized and said specified attribute of a user is performed. The step which specifies the address on the network of the user terminal corresponding to the user applicable to the specified attribute, The push type information distribution approach characterized by having the step to which a call is applied to said specified user terminal, and the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[Claim 5] The push type information distribution approach according to claim 4 characterized by having the step which registers the address on each network into this server equipment as a registration procedure for receiving the data communications service which said two or more user terminals access said repeating installation beforehand, and said

server equipment offers, and the step to which said repeating installation excepts the user terminal which has not finished said registration from the object of the aforementioned call.
[Claim 6] It is the push type information distribution approach according to claim 1 to 5 characterized by being the gateway unit which said two or more user terminals belong to the 2nd information communication network according to the 2nd communications protocol with which said 1st information communication networks differ, and said repeating installation changes said 1st and 2nd communications protocols mutually, and relays transfer of said information mail while said server equipment belongs to the 1st information communication network according to the 1st communications protocol.
[Claim 7] While the address on the 1st network respectively used in said 1st information communication network is given, said two or more user terminals It is identified by the address on the 2nd network which corresponds 1 to 1 time with the address on said 1st network in said 2nd information communication network. Said repeating installation The push type information distribution approach according to claim 6 characterized by changing the address on said 1st network, and the address on said 2nd network mutually.
[Claim 8] Said 2nd information communication network is the push type information distribution approach according to claim 6 or 7 characterized by being the local network in which a specific user terminal is held, and on the other hand said 1st information communication network being a global network which comes to interconnect in information resources, such as said server equipment to which the identification information for identifying the absolute address on a network was assigned.
[Claim 9] It is the push type information distribution approach according to claim 8 which said 2nd information communication network is a mobil radio communication network which holds two or more user terminals which are migration terminals, and is characterized by on the other hand said 1st information communication network being the Internet.
[Claim 10] It is the repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A receiving means to receive the information mail which specifies the address on the network of the user terminal of which it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, An are recording means to accumulate said received information mail, and the call means, to which a call is applied to the user terminal as which the address on said network was specified, Repeating installation characterized by having a transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[Claim 11] It is the repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A storage means to memorize beforehand the information about the user terminal which receives the communications service which said server equipment offers, A receiving means to receive the information mail supplied from said server equipment, and an are recording means to accumulate said received information mail, Repeating installation characterized by having the call means to which a call is applied to the user terminal which corresponds based on the information about the user terminal which receives said communications service memorized beforehand, and a transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[Claim 12] It is the repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A storage means to match and memorize a user's attribute and the address on the network of a user terminal about each user, A receiving means to receive the information mail which specifies the attribute of the user of whom it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, Matching with an are recording means to accumulate said received information mail, and the attribute of said user who memorized and said specified attribute of a user is performed. A specific means to specify the address on the network of the user terminal corresponding to the user applicable to the specified attribute, Repeating installation characterized by having the call means to which a call is applied to said specified user terminal, and a transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[Claim 13] It is the repeating installation according to claim 10 to 12 characterized by having a protocol conversion means for said two or more user terminals to belong to the 2nd information communication network according to the

2nd communications protocol with which said 1st information communication networks differ while said server equipment belongs to the 1st information communication network according to the 1st communications protocol, and to change said 1st and 2nd communications protocols mutually.
[Claim 14] While the address on the 1st network respectively used in said 1st information communication network is given, said two or more user terminals It is identified by the address on the 2nd network which corresponds 1 to 1 time with the address on said 1st network in said 2nd information communication network. Repeating installation according to claim 13 characterized by having an address translation means to change the address on said 1st network, and the address on said 2nd network mutually.
[Claim 15] Said 2nd information communication network is repeating installation according to claim 13 or 14 characterized by being the local network in which a specific user terminal is held, and on the other hand said 1st information communication network being a global network which comes to interconnect in information resources, such as said server equipment to which the identification information for identifying the absolute address on a network was assigned.
[Claim 16] It is the repeating installation according to claim 15 which said 2nd information communication network is a mobil radio communication network which holds two or more user terminals which are migration terminals, and is characterized by on the other hand said 1st information communication network being the Internet.

[Translation done.]

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the push type information distribution approach of offering information from server equipment to two or more user terminals through a network, and its repeating installation.
[0002]
[Description of the Prior Art] Conventionally, the so-called pull mold information distribution of the method with which a user accesses an information offer entrepreneur's (content provider) server equipment from communication terminals, such as a personal computer, and downloads the information on desired is known for the field of the communications service through the Internet etc. Moreover, in recent years, the so-called push type information distribution which provides a user with information actively from a server equipment side, without waiting for access by the user is also proposed.
[0003] On the other hand, complicated diversification of the information communication network in recent years is carried out, and its gestalt of the network between which it is placed by various repeating installation has also increased between server equipment, such as interconnecting through a gateway unit in the networks from which a communications protocol differs mutually, and a user terminal.
[0004]
[Problem(s) to be Solved by the Invention] If a network gestalt is in the inside which carries out complicated diversification and goes as mentioned above, the service arrangement of information distribution may also have various modes. It is also considered that repeating installation bears a part of service accompanying information distribution instead of server equipment as one of them.
[0005] This invention was made under such a background and aims at offering the push type information distribution approach of the new gestalt which can bear a part of service accompanying information distribution instead of server equipment in between server equipment and user terminals, and its repeating installation.
[0006]
[Means for Solving the Problem] In order to solve the technical problem mentioned above, invention according to claim 1 Two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which receives the information mail which specifies the address on the network of the user terminal of which it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, It is characterized by having the step which accumulates said received information mail, the step to which a call is applied to the user terminal as which the address on said network was specified, and the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0007] Moreover, invention according to claim 2 is characterized by for said two or more user terminals accessing said server equipment beforehand, and having the step which registers the address on each network into this server equipment as a registration procedure for receiving the data communications service which this server equipment offers in invention according to claim 1.
[0008] Moreover, two or more user terminals in which invention according to claim 3 receives informational offer from

an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which memorizes beforehand the information about the user terminal which receives the communications service which said server equipment offers, The step which receives the information mail supplied from said server equipment, and the step which accumulates said received information mail, It is characterized by having the step to which a call is applied to the user terminal which corresponds based on the information about the user terminal which receives said communications service memorized beforehand, and the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.

[0009] Moreover, two or more user terminals in which invention according to claim 4 receives informational offer from an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which matches and memorizes a user's attribute and the address on the network of a user terminal about each user, The step which receives the information mail which specifies the attribute of the user of whom it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, Matching with the step which accumulates said received information mail, and the attribute of said user who memorized and said specified attribute of a user is performed. The step which specifies the address on the network of the user terminal corresponding to the user applicable to the specified attribute, It is characterized by having the step to which a call is applied to said specified user terminal, and the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.

[0010] Moreover, in invention according to claim 4, said two or more user terminals access said repeating installation beforehand, and invention according to claim 5 is characterized by having the step which registers the address on each network into this server equipment as a registration procedure for receiving the data communications service which said server equipment offers, and the step to which said repeating installation excepts the user terminal which has not finished said registration from the object of the aforementioned call.

[0011] Invention according to claim 6 is set to invention according to claim 1 to 5. Moreover, said server equipment While belonging to the 1st information communication network according to the 1st communications protocol, said two or more user terminals It belongs to the 2nd information communication network according to the 2nd different communications protocol from said 1st information communication network. Said repeating installation It is characterized by being the gateway unit which changes said 1st and 2nd communications protocols mutually, and relays transfer of said information mail.

[0012] Invention according to claim 7 is set to invention according to claim 6. Moreover, said two or more user terminals While the address on the 1st network respectively used in said 1st information communication network is given It is identified by the address on the 2nd network which corresponds 1 to 1 time with the address on said 1st network in said 2nd information communication network. Said repeating installation It is characterized by changing the address on said 1st network, and the address on said 2nd network mutually.

[0013] Moreover, in invention according to claim 6 or 7, said 2nd information communication network is a local network in which a specific user terminal is held, and, on the other hand, invention according to claim 8 is characterized by said 1st information communication network being a global network which comes to interconnect in information resources, such as said server equipment to which the identification information for identifying the absolute address on a network was assigned.

[0014] Moreover, invention according to claim 9 is a mobil radio communication network which holds two or more user terminals said whose 2nd information communication network is a migration terminal in invention according to claim 8, and, on the other hand, said 1st information communication network is characterized by being the Internet.

[0015] Moreover, invention according to claim 10 is repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A receiving means to receive the information mail which specifies the address on the network of the user terminal of which it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, It is characterized by having an are recording means to accumulate said received information mail, the call means, to which a call is applied to the user terminal as which the address on said network was specified, and a

transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0016] Moreover, invention according to claim 11 is repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A storage means to memorize beforehand the information about the user terminal which receives the communications service which said server equipment offers, A receiving means to receive the information mail supplied from said server equipment, and an are recording means to accumulate said received information mail, It is characterized by having the call means to which a call is applied to the user terminal which corresponds based on the information about the user terminal which receives said communications service memorized beforehand, and a transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0017] Moreover, invention according to claim 12 is repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A storage means to match and memorize a user's attribute and the address on the network of a user terminal about each user, A receiving means to receive the information mail which specifies the attribute of the user of whom it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, Matching with an are recording means to accumulate said received information mail, and the attribute of said user who memorized and said specified attribute of a user is performed. A specific means to specify the address on the network of the user terminal corresponding to the user applicable to the specified attribute, It is characterized by having the call means to which a call is applied to said specified user terminal, and a transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0018] Invention according to claim 13 is set to invention according to claim 10 to 12. Moreover, said server equipment While belonging to the 1st information communication network according to the 1st communications protocol, said two or more user terminals It belongs to the 2nd information communication network according to the 2nd different communications protocol from said 1st information communication network, and is characterized by having a protocol conversion means to change said 1st and 2nd communications protocols mutually.
[0019] Invention according to claim 14 is set to invention according to claim 13. Moreover, said two or more user terminals While the address on the 1st network respectively used in said 1st information communication network is given It is identified by the address on the 2nd network which corresponds 1 to 1 time with the address on said 1st network in said 2nd information communication network. It is characterized by having an address translation means to change the address on said 1st network, and the address on said 2nd network mutually.
[0020] Moreover, in invention according to claim 13 or 14, said 2nd information communication network is a local network in which a specific user terminal is held, and, on the other hand, invention according to claim 15 is characterized by said 1st information communication network being a global network which comes to interconnect in information resources, such as said server equipment to which the identification information for identifying the absolute address on a network was assigned.
[0021] Moreover, invention according to claim 16 is a mobil radio communication network which holds two or more user terminals said whose 2nd information communication network is a migration terminal in invention according to claim 15, and, on the other hand, said 1st information communication network is characterized by being the Internet.
[0022]
[Embodiment of the Invention] Hereafter, the operation gestalt of this invention is explained with reference to a drawing. This operation gestalt is constituted as a system which applied this invention to the migration packet communication network. In addition, this invention is not limited to this operation gestalt, but modification various by within the limits of the technical thought is possible for it.
[0023] A: The whole configuration (1) system block diagram 1 of an operation gestalt is a block diagram showing 1 operation gestalt of this invention. In this drawing, MS is a migration machine which receives the packet communication service of the migration packet communication network MPN. This migration machine MS is connected also to the migration telephone network which is not illustrated except that it connects with the migration packet communication network MPN shown in this drawing, and it is also possible to receive service of a mobile phone. The migration machine MS is equipped with the control unit to which information alter operation, such as the information-display section which consisted of the voice-input/output section for a user to perform a voice message, the

wireless section which performs radio with a base station BS, a liquid crystal panel, etc., a figure input, and an alphabetic character input, is performed, and also it contains the microcomputer which controls these each part. Moreover, the migration machine MS carries the software for document data perusal (the so-called browser), and displays a dialogue screen based on the data (henceforth HTML data) of the HTML format supplied through the migration packet communication network MPN from an information provider (it abbreviates to IP hereafter).
[0024] Moreover, the migration packet communication network MPN is constituted by the communication line which connects a base station BS, packet subscriber-processing equipment PS, the gateway server GWS, the subscriber database UDB, the accounting system BILL, and these. The base station BS is arranged at intervals of predetermined [which divided the ground in the range, such as a radius of 500m,], and performs radio between the migration machines MS which carried out the ** area to the wireless zone which each forms. Packet subscriber-processing equipment PS is the computer system with which the packet subscriber exchange which holds two or more base stations BS was equipped, and it relays packet switching in the migration packet communication network MPN while it receives the packet-switching demand from the migration machine MS (packet registration processing mentioned later).

[0025] The gateway server GWS is the computer system with which the migration packet gateway transit exchange for interconnecting the migration packet communication network MPN and other networks, such as Internet INET, was equipped, and changes a different communications protocol between networks. Specifically, the interconversion of the transmission protocol for migration packet communication networks with which the migration packet communication network MPN follows, and TCP/IP which other networks, such as Internet INET, follow is performed. Moreover, the gateway server GWS cooperates with the IP server W, the subscriber database UDB, and the accounting system BILL, and performs control about various applications, such as accounting accompanying a data communications service and information distribution.
[0026] The subscriber database UDB holds IP registration information file which consists of registration information on IP which is the subscriber registration information file and information offer entrepreneur who consist of registration information about the subscriber of the migration packet communication network MPN. Drawing 2 is a data format Fig. which illustrates the contents of this subscriber database UDB. As shown in this drawing, the attribute data which shows every [of the migration packet communication network MPN] subscriber (namely, user of the migration machine MS) the attribute of each subscriber, such as the telephone number of the migration machine MS, a name, sex, a birth date, and the address, is accumulated in the subscriber registration information file. Moreover, it is the absolute address on that entrepreneur name and a network (for example, URL which specifies the information resource on WWW (World Wide Web) in the case of the Internet (Uniform Resource Locator).) for every IP which is carrying out the contract of receiving a gateway service among the entrepreneurs of this migration packet communication network MPN to IP registration information file. Hereafter, this operation gestalt explains the absolute address on a network as URL. When the gestalt of accounting is information offer entrepreneur accounting, the information which shows that, the information the gestalt of accounting indicates the meter-rate system or a flat rate system to be are accumulated. Here, it says that information offer entrepreneur accounting performs accounting to the information distribution through a communication line not to the user who received distribution but to an information offer entrepreneur. On the other hand, below, it calls it user accounting to charge to a user.
[0027] The accounting system BILL computes the tariff to offer of the service concerned based on the hysteresis information on the service supplied from the gateway server GWS, and publishes a bill to a user or IP. There are user accounting, information offer entrepreneur accounting, the meter-rate system, and a flat rate system in the gestalt of accounting, and the accounting system BILL performs accounting according to each accounting gestalt.
[0028] The IP server W is a server system which IP employs, and sends out the news with which a user should be provided to a network in the form of HTML data. There are also what is connected to the gateway server GWS through Internet INET, and a thing (IP server W-MAX mentioned later) which it is prepared in the interior of others and gateway server GWS although it connects with the gateway server GWS through a dedicated line, and the entrepreneur of the migration packet communication network MPN itself offers in this IP server W.
[0029] (2) Explain the configuration of the gateway server GWS, next the configuration of the gateway server GWS. Drawing 3 is the block diagram showing the configuration of the gateway server GWS. The gateway server GWS is constituted in this drawing by the bus BUS which connects system control section I-MAX, customer Research and Data Processing Department U-MAX, accounting Management Department P-MAX, electronic mail Management

Department M-MAX, IP server W-MAX, and these each part.
[0030] While system control section I-MAX controls each part of the gateway server GWS concerned, performing protocol conversion between the migration packet communication network MPN and other networks, such as Internet INET, etc. functions as an interface between networks.
[0031] Customer Research and Data Processing Department U-MAX has memorized and managed the correspondence relation between the telephone number of the migration machine MS besides the **** subscriber registration information acquired with reference to the subscriber database UDB, and IP registration information, and a user management number (it mentions later), the access hysteresis (for example, count of access to each IP server) to a user's IP server W, etc. Moreover, customer Research and Data Processing Department U-MAX performs the interconversion of the telephone number and a user management number, collating of the telephone number, matching of attribute data, etc. based on the above-mentioned storage information.
[0032] Accounting Management Department P-MAX has recorded and managed information required for accounting to service of information distribution, and supplies such information to the accounting system BILL. While specifically memorizing the fact of having received the electronic mail from the IP server W, as hysteresis information, counting of the number of the packets delivered and received when distributing the electronic mail concerned to a user was carried out, and these enumerated data are memorized. Moreover, with reference to the contents of the subscriber database UDB incorporated by customer Research and Data Processing Department U-MAX, accounting Management Department P-MAX judges whether the gestalt of accounting is information offer entrepreneur accounting, and whether it is the meter-rate system about each IP, and requests accounting to the accounting system BILL according to the accounting gestalt.
[0033] Electronic mail Management Department M-MAX mediates transfer of an electronic mail between the users of the migration machine MS between the user of the migration machine MS, and the user of other networks, such as Internet INET, or between the user of the migration machine MS, and the IP server W. This electronic mail Management Department M-MAX is equipped with the mail box which accumulates the electronic mail delivered and received in every user and every IP server W, there are the three following kinds of these mail boxes according to the mode of mail service, and these are distinguished by the address (mail address) of a mail box.
** The 1st mail box BOX1 is a mail box of the common knowledge which accumulates the electronic mail delivered and received among users in the mail address which was able to be assigned for every user.
[0034] ** Next, the 2nd mail box BOX2 is a mail box which accumulates the electronic mail transmitted for the purpose, such as information offer to a specific user, from IP. Here, a specific user is a user who has finished registration procedure to IP beforehand. This 2nd mail box BOX2 is used in the 1st mode of service by the push type information distribution mentioned later.
[0035] ** Next, the 3rd mail box BOX3 is a mail box which accumulates the electronic mail transmitted from IP for the purpose, such as information offer, to a user as well as the 2nd mail box BOX2. A different point from the 2nd mail box BOX2 is in the place which does not accumulate the electronic mail offered to the user beforehand registered into IP, but accumulates the electronic mail offered to a user with the attribute (attributes, such as sex, age, and the address) specified from IP. This 3rd mail box BOX3 is used in the 2nd mode of service by the push type information distribution mentioned later.
[0036] IP server W-MAX is a server system which the entrepreneur of the migration packet communication network MPN itself offers. This IP server W-MAX as well as other IP servers W serves information offer etc. to a user.
[0037] B: Explain actuation of an operation gestalt, next actuation of the operation gestalt which consists of the above-mentioned configuration. First, information distribution is explained and, subsequently accounting is explained.
B-1: There are pull mold information distribution whose user of the migration machine MS accesses the IP server W actively, and receives information distribution, and push type information distribution which performs information distribution for specification or an unspecified user from the IP server W side, without waiting for a user's access as information distribution concerning an information distribution book operation gestalt. Hereafter, these are divided and explained.
[0038] (1) Pull mold information distribution drawing 4 is a sequence which shows basic actuation of pull mold information distribution. As shown in this drawing, the migration machine MS performs packet registration to packet subscriber-processing equipment PS first (step S1). This packet registration is a registration procedure performed beforehand, in order that the migration machine MS may make packet switching possible between the migration packet

communication networks MPS. If this packet registration is completed, the migration machine MS will transmit a line connection demand signal to the migration packet communication network MPS (step S2). This line connection demand signal is sent to the gateway server GWS through packet subscriber-processing equipment PS (step S3). On the other hand, when a line connection is possible for the gateway server GWS, it returns a line connection reply signal to the migration machine MS through packet subscriber-processing equipment PS (step S4, S5). Thereby, packet switching becomes possible between the migration machine MS and the gateway server GWS.
[0039] Subsequently, the migration machine MS specifies URL of the desired IP server W, and transmits a connection-request signal (step S6). This connection-request signal relays packet subscriber-processing equipment PS, and is transmitted to the gateway server GWS (step S7). In response, the gateway server GWS sets up a link between the IP servers W of specified URL (step S8).
[0040] In this way, if a link is set up between the gateway servers GWS, the IP server W will transmit the HTML data prepared beforehand to the migration machine MS (step S9). This HTML data relays the gateway server GWS, and is transmitted to packet subscriber-processing equipment PS (step S10). Furthermore with packet subscriber-processing equipment PS, the received HTML data are transmitted to the migration machine MS (step S11). Actuation of the above-mentioned steps S6-S11 is repeatedly performed according to the amount of data of the data which should be distributed to the migration machine MS from the IP server W. Moreover, the migration machine MS interprets the HTML data by which sequential distribution is carried out by the browser, and displays receipt information on the information-display section in the meantime.
[0041] In this way, if the distribution of data to the migration machine MS is completed, the migration machine MS will transmit the Acknowledgement signal of data reception (step S12). Packet subscriber-processing equipment PS transmits this Acknowledgement signal to the gateway server GWS, and performs the notice of delivery (step S13). On the other hand, the IP server's W completion of the data distribution to the migration machine MS releases the link between the gateway server GWS and the IP server W (step S14). Moreover, if there is a notice of delivery of data from the migration machine MS to the gateway server GWS, the gateway server GWS will perform accounting to the information distribution concerned. About the detail of the accounting performed at this time, it mentions later.
[0042] (2) Explain basic actuation of push type information distribution **** and push type information distribution, and subsequently service by push type information distribution sticks like 2 voice, and explain.
** Basic actuation drawing 5 of push type information distribution is the sequence diagram showing basic actuation of push type information distribution. As shown in this drawing, the IP server W transmits to the gateway server GWS first by making into an electronic mail information with which a user should be provided (step S21). The gateway server GWS transmits the notice signal of communication link initiation to packet subscriber-processing equipment PS while storing this in a predetermined mail box, if an electronic mail is received (step S22). The information which specifies the arrival-of-the-mail place address of an electronic mail is included in this notice signal of communication link initiation. Packet subscriber-processing equipment PS will apply a call to the migration machine MS applicable to the arrival-of-the-mail place address included in the signal concerned, if this notice signal of communication link initiation is received (step S23).
[0043] If the user of the migration machine MS performs predetermined actuation to the migration machine MS according to the above-mentioned call, the same sequence as the above-mentioned steps S1-S5 is performed, and it will be in the condition in which packet switching is possible between the gateway servers GWS (steps S24-S28). Subsequently, the gateway server GWS transmits the notice signal of arrival of the mail containing the address information of the mail box with which the electronic mail was stored to packet subscriber-processing equipment PS (step S29). Furthermore, packet subscriber-processing equipment PS transmits the received notice signal of arrival of the mail to the migration machine MS (step S30).
[0044] The migration machine MS will transmit the connection-request signal which specified the address of the mail box contained in the signal concerned to packet subscriber-processing equipment PS, if the above-mentioned notice signal of arrival of the mail is received (step S31). This connection-request signal is transmitted to the gateway server GWS through packet subscriber-processing equipment PS (step S32). The gateway server GWS will transmit a connection-confirm reply signal to packet subscriber-processing equipment PS, if a connection-request signal is received (step S33). Packet subscriber-processing equipment PS transmits the received connection-confirm reply signal to the migration machine MS (step S34).
[0045] Subsequently, the gateway server GWS reads the electronic mail received from the above-mentioned IP server

W from the address of a mail box specified by the above-mentioned connection-request signal, and transmits this electronic mail to packet subscriber-processing equipment PS (step S35). Packet subscriber-processing equipment PS will be transmitted to the migration machine MS which advanced the connection request concerned for this, if an electronic mail is received (step S36). Actuation of the above-mentioned steps S31-S36 is repeatedly performed according to the amount of data of the electronic mail which should be distributed to the migration machine MS from the IP server W.

[0046] In this way, if the migration machine MS receives an electronic mail, the notice of delivery to the gateway server GWS will be performed by the same sequence as the above-mentioned steps S12 and S13 (step S 37 38), and push type information distribution will be completed.

[0047] Moreover, if there is a notice of delivery of data from the migration machine MS to the gateway server GWS, the gateway server GWS will perform accounting to the information distribution concerned. About the detail of the accounting performed at this time, it mentions later.

[0048] ** In the 1st mode book operation gestalt of service by push type information distribution, there are two modes as service by push type information distribution. First, the 1st mode is explained. The 1st mode is service which distributes this electronic mail according to a demand of a user after accumulating the electronic mail transmitted from IP for the purpose, such as information offer, to the user who has finished registration procedure to IP beforehand to the 2nd mail box BOX2 and calling the corresponding user.

[0049] Drawing 6 is a conceptual diagram explaining the 1st mode. In this drawing, the user who desires service of information offer etc. to specific IP first operates the migration machine MS, accesses a network, and performs registration procedure beforehand to the IP server W (step S61). Although a user's subscriber phone number (namely, telephone number of the migration machine MS) is transmitted to the gateway server GWS by access at this time, the gateway server GWS changes the telephone number concerned into the user management number which is the identification information of this and the user who corresponds by 1 to 1 in customer Research and Data Processing Department U-MAX in order to avoid that this telephone number is sent out to the exterior of the migration packet communication network MPN. To the IP server W, this user management number is transmitted from the gateway server GWS, and it is accumulated in the IP server W as a user's registration information (step S62).

[0050] And if information to offer to a user [finishing / registration] in the IP server W occurs, the IP server W concerned will constitute transmit data for this information from a format of an electronic mail, will add the user management number of the user [finishing / registration] who wants to provide this electronic mail with the 2nd address and information on a mail box BOX2, and will transmit to the gateway server GWS (step S63).

[0051] In customer Research and Data Processing Department U-MAX, the gateway server GWS changes the specified user management number into the corresponding telephone number, and applies a call to the migration machine MS of this telephone number while it will accumulate this in the 2nd mail box BOX2 of electronic mail Management Department M-MAX, if an electronic mail is received from the IP server W (step S64).

[0052] When the user of the migration machine MS which received this call desires reception of the information offered from the IP concerned, this user operates the migration machine MS, accesses the gateway server GWS, and demands download of an electronic mail (step S65). On the other hand, after the gateway server GWS judges the propriety of access to the 2nd mail box BOX2 by collating the telephone number corresponding to the user management number specified by the IP server W at the time of the telephone number of the migration machine MS which had the demand concerned in customer Research and Data Processing Department U-MAX, and electronic mail reception, it reads an electronic mail from this mail box BOX2, and transmits to the migration machine MS (steps S66 and S67). In this way, it becomes possible to perform information offer to the specific user who has registered with the IP server W.

[0053] ** the 2nd mode of service by push type information distribution, next the 2nd voice -- attach like and explain. the user who the 2nd mode accumulates the electronic mail transmitted from IP for the purpose, such as information offer, to a user with the attribute (attributes, such as sex, age, and the address) specified from IP in the 3rd mail box BOX3, and corresponds -- call appearance -- it is the service which distributes this electronic seal in a top according to a demand of a user the bottom.

[0054] Drawing 7 is a conceptual diagram explaining the 2nd mode. In this drawing, the user with the preparation which receives service of information offer from unspecified IP etc. first operates the migration machine MS, accesses a network, and performs registration procedure beforehand to the gateway server GWS (step S71). By access at this

time, the telephone number of the migration machine MS is transmitted to the gateway server GWS, and this is accumulated in customer Research and Data Processing Department U-MAX of the gateway server GW as a user's registration information.
[0055] On the other hand, if information to offer to a user in the IP server W occurs, the IP server W concerned will add attribute data, such as sex for specifying a user, age, and the address, to an electronic mail, and will transmit to the gateway server GWS while it constitutes this information from a format of an electronic mail (step S72).
[0056] In customer Research and Data Processing Department U-MAX, the gateway server GWS performs matching with the attribute data added to this electronic mail, and each user's attribute data registered into the subscriber database UDB, and specifies an applicable user while it will accumulate this electronic mail in the 3rd mail box BOX3, if the electronic mail which added the above-mentioned attribute data from the IP server W is received. For example, supposing the attribute specified by the IP server W is "the man of 30 years-old cost who lives in Tokyo", out of the user registered into the subscriber database UDB, it will search the user applicable to this attribute, and will extract a user's searched telephone number. The gateway server GWS applies a call to the migration machine MS of the telephone number extracted in this way (step S73).
[0057] When the user of the migration machine MS which received this call wishes to have the reception of the information offered from IP, the user concerned operates the migration machine MS, accesses the gateway server GWS, and demands download of an electronic mail (step S74). On the other hand, the gateway server GWS transmits to the migration machine MS which read the electronic mail from the 3rd mail box BOX3, and had a demand, after judging the propriety of access to the 3rd mail box BOX3 by collating the telephone number of the migration machine MS which had the demand concerned in customer Research and Data Processing Department U-MAX, and the telephone number of the user who has finished the above-mentioned registration procedure (steps S75 and S76). In this way, it enables the IP server W to perform communications service to the user who wishes information offer in a user with the preparation which receives information offer from the unspecified IP server W.
[0058] B-2: Although there are telex rate accounting to communication service and charge accounting of information to the communications service of IP as accounting accounting, this operation gestalt explains telex rate accounting as an example. Moreover, the accounting concerning this operation gestalt has user accounting charged to the user who received informational offer, and information offer entrepreneur accounting charged to IP which offered information. In this operation gestalt, it has managed by method which is different in whether it considers as user accounting the case of pull mold information distribution, and in the case of push type information distribution, or it considers as information offer entrepreneur accounting. Hereafter, each case is explained.
[0059] (1) In pull mold information distribution, generally, since information is offered according to an active demand of a user in pull mold information distribution, the direction of user accounting is concordance and a cone. However, it is assumed also when IP wants to offer information for nothing according to a demand of a user unspecified for the purpose, such as an advertisement advertisement, and the direction of information offer entrepreneur accounting is concordance and a cone in this case. Then, with this operation gestalt, in supposing that user accounting is applied in principle in pull mold information distribution and applying information offer entrepreneur accounting exceptionally, it registers IP used as the object into the subscriber database UDB beforehand. And the gateway server GWS extracts the list of URL of the IP server W with which information offer entrepreneur accounting is applied from the subscriber database UDB, and memorizes it in the memory in accounting Management Department P-MAX as an IP table for information offer entrepreneur accounting.
[0060] Drawing 8 is a flow chart which shows the accounting in pull mold information distribution. In this drawing, if a user operates the migration machine MS first and the predetermined IP server W is accessed, it will be confirmed whether when the gateway server GWS receives the confirmation-of-receipt signal from a user, it corresponds to the candidate IP for information offer entrepreneur accounting by which URL of the IP server W accessed by the user was listed in the above-mentioned table (step S101).
[0061] Here, if it does not correspond to the candidate IP for information offer entrepreneur accounting, user accounting is applied as a principle. In this case, accounting Management Department P-MAX of the gateway server GWS transmits the user management number of the user who received the information distribution concerned, and the enumerated data of the number of packets delivered and received to the accounting system BILL (step S102). The accounting system BILL computes a telex rate by carrying out the multiplication of the enumerated data and the unit price of a packet which were supplied from the gateway server GWS, and a bill is published to the user concerned

specified by the user management number (step S103).
[0062] On the other hand, if URL of the IP server W accessed by the user corresponds to the candidate IP for information offer entrepreneur accounting, information offer entrepreneur accounting will be applied. In this case, accounting Management Department P-MAX of the gateway server GWS transmits the enumerated data of the number of packets delivered and received, and URL of the IP server W which received access to the accounting system BILL (step S104). The accounting system BILL computes a telex rate by carrying out the multiplication of the enumerated data and the unit price of a packet which were supplied from the gateway server GWS, and publishes a bill to IP (step S105).
[0063] (2) Explain the accounting the case of push type information distribution, next in push type information distribution. Drawing 9 is a flow chart which shows the accounting in push type information distribution. In this drawing, it recognizes that the gateway server GWS has a request of push type information distribution if the electronic mail from the IP server W is received in the 2nd mail box BOX2 or 3rd mail box BOX3, and determines to apply information offer entrepreneur accounting (step S201). That is, since the gestalt of the information offer tends to get used to information offer entrepreneur accounting in push type information distribution, in this operation gestalt, it is supposed that information offer entrepreneur accounting will be applied uniformly. Of course, what is necessary is it to be possible to apply user accounting in push type information distribution, and to judge information offer entrepreneur accounting or user accounting, and just to perform processing corresponding to user accounting like the case of the above-mentioned pull mold information distribution, in that case, based on the contents of a setting of the subscriber database UDB, in user accounting.
[0064] Subsequently, although the gateway server GWS distributes the electronic mail received from the IP server W to the migration machine MS which specified the user set as the object of information offer as above-mentioned, applied the call to that migration machine MS, and had the demand, in information offer entrepreneur accounting, it does not perform user accounting to this distribution, but is altogether charged to IP. In this case, accounting Management Department P-MAX of the gateway server GWS confirms whether the gestalt of accounting to the IP server W concerned is the meter-rate system, or it is a flat rate system with reference to IP registration information accumulated in the subscriber database UDB (step S202).
[0065] When the gestalt of accounting is the meter-rate system, accounting Management Department P-MAX of the gateway server GWS transmits the enumerated data of the number of packets delivered and received at the time of transmission of an electronic mail, and URL of the IP server W which is the transmitting origin of an electronic mail to the accounting system BILL (step S203). The accounting system BILL computes a telex rate by carrying out the multiplication of the enumerated data and the unit price of a packet which were supplied from the gateway server GWS, and publishes a bill to IP (step S204).
[0066] On the other hand, when the gestalt of accounting is a flat rate system, accounting Management Department P-MAX of the gateway server GWS is the timing which received the electronic mail from the IP server W, and transmits URL of the IP server W to the accounting system BILL, and accounting to the IP concerned is directed (step S205). In response, the accounting system BILL publishes the bill of the fixed amount to directed IP (step S206).
[0067] In addition, when the accounting gestalt of a flat rate system is accounting to fixed periods, such as a moon unit, if an electronic mail arrives from the IP server W to the gateway server GWS, accounting to IP will be performed irrespective of no. Therefore, there is no cooperation with the gateway server GWS and the accounting system BILL in this case, and the accounting system BILL publishes a periodical bill to IP autonomously.
[0068] C: Like modification previous statement, this invention is not restricted to the operation gestalt mentioned above. It is the range of the technical thought of this invention, for example, the following various modification etc. is possible.
(1) Although aimed at the case where information offer is performed from other networks (1st information communication network), such as Internet INET, to the migration machine MS belonging to the migration packet communication network MPN, with the operation gestalt, this invention can be applied also when performing information offer from such a network to the migration machine MS belonging to the migration packet communication network MPN, if the global network replaced with Internet INET, for example exists in others. In this case, what is necessary is just to specify the information resource of the IP server W with the absolute address which replaces with URL and is defined on the global network applied. Moreover, the fixed network which holds not only the migration packet communication network MPN but a built-in end can apply the network (2nd information communication

network) where a user terminal belongs, also when performing information offer to the user terminal belonging to other local networks. Furthermore, the communications protocol which could apply this invention not only to a packet exchange network but to the data communication network which performs data communication in the form of others, and was shown with the operation gestalt is only an example. Moreover, the format of the data distributed from IP server may also adopt the format of not only HTML but others. For example, if the information distributed is only text data, of course, there will be no need of adopting the data format corresponding to multimedia like HTML.
[0069] (2) With an operation gestalt, although telex rate accounting to pull mold information information distribution was uniformly made into the meter-rate system, the information which shows the meter-rate system or a flat rate system like [not only in this but push type information distribution] is registered into the subscriber database UDB, and it may be made to perform accounting according to the gestalt of each accounting. When adopting a flat rate system in pull mold information information distribution, like the case of push type information distribution, are concerned, there is nothing to the number of packets delivered and received, and the fixed amount is charged to a user or IP. Moreover, although the gestalt of accounting was set up for every IP in IP registration information file of the subscriber database UDB with the operation gestalt, it is possible not only this but to set up for every user in a subscriber registration information file. Moreover, what is necessary is to set up the accounting gestalt for every user about each IP in IP registration information file or just to set up the accounting gestalt for every IP about each user in a subscriber registration information file to set up an accounting gestalt for every IP and every user.
[0070] (3) Although only telex rate accounting was explained with the operation gestalt since it was easy, this invention is applicable similarly about charge accounting of information. However, various accounting gestalten, such as charging according to the number of cases of the electronic mail which does not carry out accounting corresponding to the number of packets delivered and received like telex rate accounting, for example, is delivered and received, when adopting the meter-rate system as charge accounting of information, or adding the amount-of-money information over the e-mail distribution to the electronic mail transmitted from the IP server W to change the amount of money with an issue, and sending to the gateway server GWS, are applicable. Moreover, in charge accounting of information, only user accounting is performed and it may not be made not to perform information offer entrepreneur accounting. In this case, all the accounting gestalten in IP registration information file of the subscriber database UDB may be set as user accounting, and it may not be made not to perform accounting about IP to which a setup of information offer entrepreneur accounting is carried out.
[0071] (4) Although determined with the operation gestalt by the gateway server's GWS holding the list for [IP] information offer entrepreneur accounting for the accounting gestalt in pull mold information distribution, and referring to this, the information which adds a tag to the HTML data transmitted not only from this but from the IP server W, and shows whether it is information offer entrepreneur accounting adds, and it may make the gateway server GWS determine an accounting gestalt based on this information.
[0072] (5) It does not pass over the network configuration of an operation gestalt to an example, and, of course, this invention is not limited to this configuration. For example, it may be made to carry out the functional assignment of dividing into the node which takes charge of the conversion function of a communications protocol for the gateway server GWS, and the node which takes charge of other functions, and constituting etc. by two or more nodes.
[0073] (6) the 1st voice of service according to push type information distribution at an operation gestalt -- although it sets like and the IP server W managed the information on user registration over IP, you may make it, as for this invention, the gateway server GWS take charge of the information management of this user registration For example, transmit to the migration machine MS of the user concerned, and it is made display the HTML data with which the gateway server GWS prepared only the dialogue screen (henceforth, registration screen) to which register operation is urged in a series of dialogue screens displayed in case a user performs registration procedure to IP, as shown in drawing 10 , and user registration information is accumulated and you may make it manage it based on a user's register operation by the gateway server GWS. In this case, it can be grasped by the gateway server GWS based on address information, such as URL specified when a user accessed the IP server W, to which IP server W the user is doing registration procedure. Therefore, if the gateway server GWS matches the HTML data which offer the registration screen with address information, such as URL, and they are held about two or more IP servers W, it can specify the HTML data which should be transmitted to a user's migration machine MS as a registration screen based on address information, such as URL specified by a user.
[0074] (7) If not only this but the migration machine MS receives incoming call appearance, the gateway server GWS

is accessed automatically, without waiting for directions actuation of a user, and you may make it download an electronic mail, although the user of the migration machine MS which received the incoming call appearance of an electronic mail operates the migration machine MS concerned in push type information distribution. the gateway server GWS is accessed and the electronic mail was downloaded with the operation gestalt.

[0075]

[Effect of the Invention] As explained above, according to this invention, server equipment and the repeating installation formed between user terminals can bear a part of service accompanying push type information distribution instead of server equipment, and the push type information distribution approach of a new gestalt and its repeating installation can be offered.

[Translation done.]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

TECHNICAL FIELD

[Field of the Invention] This invention relates to the push type information distribution approach of offering information from server equipment to two or more user terminals through a network, and its repeating installation.

[Translation done.]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

PRIOR ART

[Description of the Prior Art] Conventionally, the so-called pull mold information distribution of the method with which a user accesses an information offer entrepreneur's (content provider) server equipment from communication terminals, such as a personal computer, and downloads the information on desired is known for the field of the communications service through the Internet etc. Moreover, in recent years, the so-called push type information distribution which provides a user with information actively from a server equipment side, without waiting for access by the user is also proposed.
[0003] On the other hand, complicated diversification of the information communication network in recent years is carried out, and its gestalt of the network between which it is placed by various repeating installation has also increased between server equipment, such as interconnecting through a gateway unit in the networks from which a communications protocol differs mutually, and a user terminal.

[Translation done.]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention] As explained above, according to this invention, server equipment and the repeating installation formed between user terminals can bear a part of service accompanying push type information distribution instead of server equipment, and the push type information distribution approach of a new gestalt and its repeating installation can be offered.

[Translation done.]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] If a network gestalt is in the inside which carries out complicated diversification and goes as mentioned above, the service arrangement of information distribution may also have various modes. It is also considered that repeating installation bears a part of service accompanying information distribution instead of server equipment as one of them.
[0005] This invention was made under such a background and aims at offering the push type information distribution approach of the new gestalt which can bear a part of service accompanying information distribution instead of server equipment in between server equipment and user terminals, and its repeating installation.

[Translation done.]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

MEANS

[Means for Solving the Problem] In order to solve the technical problem mentioned above, invention according to claim 1 Two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which receives the information mail which specifies the address on the network of the user terminal of which it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, It is characterized by having the step which accumulates said received information mail, the step to which a call is applied to the user terminal as which the address on said network was specified, and the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0007] Moreover, invention according to claim 2 is characterized by for said two or more user terminals accessing said server equipment beforehand, and having the step which registers the address on each network into this server equipment as a registration procedure for receiving the data communications service which this server equipment offers in invention according to claim 1.
[0008] Moreover, two or more user terminals in which invention according to claim 3 receives informational offer from an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which memorizes beforehand the information about the user terminal which receives the communications service which said server equipment offers, The step which receives the information mail supplied from said server equipment, and the step which accumulates said received information mail, It is characterized by having the step to which a call is applied to the user terminal which corresponds based on the information about the user terminal which receives said communications service memorized beforehand, and the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0009] Moreover, two or more user terminals in which invention according to claim 4 receives informational offer from an information offer entrepreneur's server equipment and this server equipment, It is the push type information distribution approach of the information communication network containing the repeating installation which relays information distribution between this server equipment and this user terminal. Said repeating installation The step which matches and memorizes a user's attribute and the address on the network of a user terminal about each user, The step which receives the information mail which specifies the attribute of the user of whom it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, Matching with the step which accumulates said received information mail, and the attribute of said user who memorized and said specified attribute of a user is performed. The step which specifies the address on the network of the user terminal corresponding to the user applicable to the specified attribute, It is characterized by having the step to which a call is applied to said specified user terminal, and the step which transmits said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0010] Moreover, in invention according to claim 4, said two or more user terminals access said repeating installation beforehand, and invention according to claim 5 is characterized by having the step which registers the address on each network into this server equipment as a registration procedure for receiving the data communications service which

said server equipment offers, and the step to which said repeating installation excepts the user terminal which has not finished said registration from the object of the aforementioned call.
[0011] Invention according to claim 6 is set to invention according to claim 1 to 5. Moreover, said server equipment While belonging to the 1st information communication network according to the 1st communications protocol, said two or more user terminals It belongs to the 2nd information communication network according to the 2nd different communications protocol from said 1st information communication network. Said repeating installation It is characterized by being the gateway unit which changes said 1st and 2nd communications protocols mutually, and relays transfer of said information mail.
[0012] Invention according to claim 7 is set to invention according to claim 6. Moreover, said two or more user terminals While the address on the 1st network respectively used in said 1st information communication network is given It is identified by the address on the 2nd network which corresponds 1 to 1 time with the address on said 1st network in said 2nd information communication network. Said repeating installation It is characterized by changing the address on said 1st network, and the address on said 2nd network mutually.
[0013] Moreover, in invention according to claim 6 or 7, said 2nd information communication network is a local network in which a specific user terminal is held, and, on the other hand, invention according to claim 8 is characterized by said 1st information communication network being a global network which comes to interconnect in information resources, such as said server equipment to which the identification information for identifying the absolute address on a network was assigned.
[0014] Moreover, invention according to claim 9 is a mobil radio communication network which holds two or more user terminals said whose 2nd information communication network is a migration terminal in invention according to claim 8, and, on the other hand, said 1st information communication network is characterized by being the Internet.
[0015] Moreover, invention according to claim 10 is repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A receiving means to receive the information mail which specifies the address on the network of the user terminal of which it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, It is characterized by having an are recording means to accumulate said received information mail, the call means, to which a call is applied to the user terminal as which the address on said network was specified, and a transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0016] Moreover, invention according to claim 11 is repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A storage means to memorize beforehand the information about the user terminal which receives the communications service which said server equipment offers, A receiving means to receive the information mail supplied from said server equipment, and an are recording means to accumulate said received information mail, It is characterized by having the call means to which a call is applied to the user terminal which corresponds based on the information about the user terminal which receives said communications service memorized beforehand, and a transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0017] Moreover, invention according to claim 12 is repeating installation which relays information distribution among two or more user terminals which receive informational offer from an information offer entrepreneur's server equipment and this server equipment. A storage means to match and memorize a user's attribute and the address on the network of a user terminal about each user, A receiving means to receive the information mail which specifies the attribute of the user of whom it is expected as an arrival-of-the-mail place, and is supplied from said server equipment, Matching with an are recording means to accumulate said received information mail, and the attribute of said user who memorized and said specified attribute of a user is performed. A specific means to specify the address on the network of the user terminal corresponding to the user applicable to the specified attribute, It is characterized by having the call means to which a call is applied to said specified user terminal, and a transmitting means to transmit said accumulated information mail according to the demand from a user terminal which carried out [aforementioned] the call.
[0018] Invention according to claim 13 is set to invention according to claim 10 to 12. Moreover, said server equipment While belonging to the 1st information communication network according to the 1st communications protocol, said two or more user terminals It belongs to the 2nd information communication network according to the 2nd different

communications protocol from said 1st information communication network, and is characterized by having a protocol conversion means to change said 1st and 2nd communications protocols mutually.
[0019] Invention according to claim 14 is set to invention according to claim 13. Moreover, said two or more user terminals While the address on the 1st network respectively used in said 1st information communication network is given It is identified by the address on the 2nd network which corresponds 1 to 1 time with the address on said 1st network in said 2nd information communication network. It is characterized by having an address translation means to change the address on said 1st network, and the address on said 2nd network mutually.
[0020] Moreover, in invention according to claim 13 or 14, said 2nd information communication network is a local network in which a specific user terminal is held, and, on the other hand, invention according to claim 15 is characterized by said 1st information communication network being a global network which comes to interconnect in information resources, such as said server equipment to which the identification information for identifying the absolute address on a network was assigned.
[0021] Moreover, invention according to claim 16 is a mobil radio communication network which holds two or more user terminals said whose 2nd information communication network is a migration terminal in invention according to claim 15, and, on the other hand, said 1st information communication network is characterized by being the Internet.
[0022]
[Embodiment of the Invention] Hereafter, the operation gestalt of this invention is explained with reference to a drawing. This operation gestalt is constituted as a system which applied this invention to the migration packet communication network. In addition, this invention is not limited to this operation gestalt, but modification various by within the limits of the technical thought is possible for it.
[0023] A: The whole configuration (1) system block diagram 1 of an operation gestalt is a block diagram showing 1 operation gestalt of this invention. In this drawing, MS is a migration machine which receives the packet communication service of the migration packet communication network MPN. This migration machine MS is connected also to the migration telephone network which is not illustrated except that it connects with the migration packet communication network MPN shown in this drawing, and it is also possible to receive service of a mobile phone. The migration machine MS is equipped with the control unit to which information alter operation, such as the information-display section which consisted of the voice-input/output section for a user to perform a voice message, the wireless section which performs radio with a base station BS, a liquid crystal panel, etc., a figure input, and an alphabetic character input, is performed, and also it contains the microcomputer which controls these each part. Moreover, the migration machine MS carries the software for document data perusal (the so-called browser), and displays a dialogue screen based on the data (henceforth HTML data) of the HTML format supplied through the migration packet communication network MPN from an information provider (it abbreviates to IP hereafter).
[0024] Moreover, the migration packet communication network MPN is constituted by the communication line which connects a base station BS, packet subscriber-processing equipment PS, the gateway server GWS, the subscriber database UDB, the accounting system BILL, and these. The base station BS is arranged at intervals of predetermined [which divided the ground in the range, such as a radius of 500m,], and performs radio between the migration machines MS which carried out the ** area to the wireless zone which each forms. Packet subscriber-processing equipment PS is the computer system with which the packet subscriber exchange which holds two or more base stations BS was equipped, and it relays packet switching in the migration packet communication network MPN while it receives the packet-switching demand from the migration machine MS (packet registration processing mentioned later).

[0025] The gateway server GWS is the computer system with which the migration packet gateway transit exchange for interconnecting the migration packet communication network MPN and other networks, such as Internet INET, was equipped, and changes a different communications protocol between networks. Specifically, the interconversion of the transmission protocol for migration packet communication networks with which the migration packet communication network MPN follows, and TCP/IP which other networks, such as Internet INET, follow is performed. Moreover, the gateway server GWS cooperates with the IP server W, the subscriber database UDB, and the accounting system BILL, and performs control about various applications, such as accounting accompanying a data communications service and information distribution.
[0026] The subscriber database UDB holds IP registration information file which consists of registration information on IP which is the subscriber registration information file and information offer entrepreneur who consist of registration

information about the subscriber of the migration packet communication network MPN. Drawing 2 is a data format Fig. which illustrates the contents of this subscriber database UDB. As shown in this drawing, the attribute data which shows every [of the migration packet communication network MPN] subscriber (namely, user of the migration machine MS) the attribute of each subscriber, such as the telephone number of the migration machine MS, a name, sex, a birth date, and the address, is accumulated in the subscriber registration information file. Moreover, it is the absolute address on that entrepreneur name and a network (for example, URL which specifies the information resource on WWW (World Wide Web) in the case of the Internet (Uniform Resource Locator).) for every IP which is carrying out the contract of receiving a gateway service among the entrepreneurs of this migration packet communication network MPN to IP registration information file. Hereafter, this operation gestalt explains the absolute address on a network as URL. When the gestalt of accounting is information offer entrepreneur accounting, the information which shows that, the information the gestalt of accounting indicates the meter-rate system or a flat rate system to be are accumulated. Here, it says that information offer entrepreneur accounting performs accounting to the information distribution through a communication line not to the user who received distribution but to an information offer entrepreneur. On the other hand, below, it calls it user accounting to charge to a user.

[0027] The accounting system BILL computes the tariff to offer of the service concerned based on the hysteresis information on the service supplied from the gateway server GWS, and publishes a bill to a user or IP. There are user accounting, information offer entrepreneur accounting, the meter-rate system, and a flat rate system in the gestalt of accounting, and the accounting system BILL performs accounting according to each accounting gestalt.

[0028] The IP server W is a server system which IP employs, and sends out the news with which a user should be provided to a network in the form of HTML data. There are also what is connected to the gateway server GWS through Internet INET, and a thing (IP server W-MAX mentioned later) which it is prepared in the interior of others and gateway server GWS although it connects with the gateway server GWS through a dedicated line, and the entrepreneur of the migration packet communication network MPN itself offers in this IP server W.

[0029] (2) Explain the configuration of the gateway server GWS, next the configuration of the gateway server GWS. Drawing 3 is the block diagram showing the configuration of the gateway server GWS. The gateway server GWS is constituted in this drawing by the bus BUS which connects system control section I-MAX, customer Research and Data Processing Department U-MAX, accounting Management Department P-MAX, electronic mail Management Department M-MAX, IP server W-MAX, and these each part.

[0030] While system control section I-MAX controls each part of the gateway server GWS concerned, performing protocol conversion between the migration packet communication network MPN and other networks, such as Internet INET, etc. functions as an interface between networks.

[0031] Customer Research and Data Processing Department U-MAX has memorized and managed the correspondence relation between the telephone number of the migration machine MS besides the **** subscriber registration information acquired with reference to the subscriber database UDB, and IP registration information, and a user management number (it mentions later), the access hysteresis (for example, count of access to each IP server) to a user's IP server W, etc. Moreover, customer Research and Data Processing Department U-MAX performs the interconversion of the telephone number and a user management number, collating of the telephone number, matching of attribute data, etc. based on the above-mentioned storage information.

[0032] Accounting Management Department P-MAX has recorded and managed information required for accounting to service of information distribution, and supplies such information to the accounting system BILL. While specifically memorizing the fact of having received the electronic mail from the IP server W, as hysteresis information, counting of the number of the packets delivered and received when distributing the electronic mail concerned to a user was carried out, and these enumerated data are memorized. Moreover, with reference to the contents of the subscriber database UDB incorporated by customer Research and Data Processing Department U-MAX, accounting Management Department P-MAX judges whether the gestalt of accounting is information offer entrepreneur accounting, and whether it is the meter-rate system about each IP, and requests accounting to the accounting system BILL according to the accounting gestalt.

[0033] Electronic mail Management Department M-MAX mediates transfer of an electronic mail between the users of the migration machine MS between the user of the migration machine MS, and the user of other networks, such as Internet INET, or between the user of the migration machine MS, and the IP server W. This electronic mail Management Department M-MAX is equipped with the mail box which accumulates the electronic mail delivered and

received in every user and every IP server W, there are the three following kinds of these mail boxes according to the mode of mail service, and these are distinguished by the address (mail address) of a mail box.
** The 1st mail box BOX1 is a mail box of the common knowledge which accumulates the electronic mail delivered and received among users in the mail address which was able to be assigned for every user.
[0034] ** Next, the 2nd mail box BOX2 is a mail box which accumulates the electronic mail transmitted for the purpose, such as information offer to a specific user, from IP. Here, a specific user is a user who has finished registration procedure to IP beforehand. This 2nd mail box BOX2 is used in the 1st mode of service by the push type information distribution mentioned later.
[0035] ** Next, the 3rd mail box BOX3 is a mail box which accumulates the electronic mail transmitted from IP for the purpose, such as information offer, to a user as well as the 2nd mail box BOX2. A different point from the 2nd mail box BOX2 is in the place which does not accumulate the electronic mail offered to the user beforehand registered into IP, but accumulates the electronic mail offered to a user with the attribute (attributes, such as sex, age, and the address) specified from IP. This 3rd mail box BOX3 is used in the 2nd mode of service by the push type information distribution mentioned later.
[0036] IP server W-MAX is a server system which the entrepreneur of the migration packet communication network MPN itself offers. This IP server W-MAX as well as other IP servers W serves information offer etc. to a user.
[0037] B: Explain actuation of an operation gestalt, next actuation of the operation gestalt which consists of the above-mentioned configuration. First, information distribution is explained and, subsequently accounting is explained.
B-1: There are pull mold information distribution whose user of the migration machine MS accesses the IP server W actively, and receives information distribution, and push type information distribution which performs information distribution for specification or an unspecified user from the IP server W side, without waiting for a user's access as information distribution concerning an information distribution book operation gestalt. Hereafter, these are divided and explained.
[0038] (1) Pull mold information distribution drawing 4 is a sequence which shows basic actuation of pull mold information distribution. As shown in this drawing, the migration machine MS performs packet registration to packet subscriber-processing equipment PS first (step S1). This packet registration is a registration procedure performed beforehand, in order that the migration machine MS may make packet switching possible between the migration packet communication networks MPS. If this packet registration is completed, the migration machine MS will transmit a line connection demand signal to the migration packet communication network MPS (step S2). This line connection demand signal is sent to the gateway server GWS through packet subscriber-processing equipment PS (step S3). On the other hand, when a line connection is possible for the gateway server GWS, it returns a line connection reply signal to the migration machine MS through packet subscriber-processing equipment PS (step S4, S5). Thereby, packet switching becomes possible between the migration machine MS and the gateway server GWS.
[0039] Subsequently, the migration machine MS specifies URL of the desired IP server W, and transmits a connection-request signal (step S6). This connection-request signal relays packet subscriber-processing equipment PS, and is transmitted to the gateway server GWS (step S7). In response, the gateway server GWS sets up a link between the IP servers W of specified URL (step S8).
[0040] In this way, if a link is set up between the gateway servers GWS, the IP server W will transmit the HTML data prepared beforehand to the migration machine MS (step S9). This HTML data relays the gateway server GWS, and is transmitted to packet subscriber-processing equipment PS (step S10). Furthermore with packet subscriber-processing equipment PS, the received HTML data are transmitted to the migration machine MS (step S11). Actuation of the above-mentioned steps S6-S11 is repeatedly performed according to the amount of data of the data which should be distributed to the migration machine MS from the IP server W. Moreover, the migration machine MS interprets the HTML data by which sequential distribution is carried out by the browser, and displays receipt information on the information-display section in the meantime.
[0041] In this way, if the distribution of data to the migration machine MS is completed, the migration machine MS will transmit the Acknowledgement signal of data reception (step S12). Packet subscriber-processing equipment PS transmits this Acknowledgement signal to the gateway server GWS, and performs the notice of delivery (step S13). On the other hand, the IP server's W completion of the data distribution to the migration machine MS releases the link between the gateway server GWS and the IP server W (step S14). Moreover, if there is a notice of delivery of data from the migration machine MS to the gateway server GWS, the gateway server GWS will perform accounting to the

information distribution concerned. About the detail of the accounting performed at this time, it mentions later.
[0042] (2) Explain basic actuation of push type information distribution **** and push type information distribution, and subsequently service by push type information distribution sticks like 2 voice, and explain.
** Basic actuation drawing 5 of push type information distribution is the sequence diagram showing basic actuation of push type information distribution. As shown in this drawing, the IP server W transmits to the gateway server GWS first by making into an electronic mail information with which a user should be provided (step S21). The gateway server GWS transmits the notice signal of communication link initiation to packet subscriber-processing equipment PS while storing this in a predetermined mail box, if an electronic mail is received (step S22). The information which specifies the arrival-of-the-mail place address of an electronic mail is included in this notice signal of communication link initiation. Packet subscriber-processing equipment PS will apply a call to the migration machine MS applicable to the arrival-of-the-mail place address included in the signal concerned, if this notice signal of communication link initiation is received (step S23).
[0043] If the user of the migration machine MS performs predetermined actuation to the migration machine MS according to the above-mentioned call, the same sequence as the above-mentioned steps S1-S5 is performed, and it will be in the condition in which packet switching is possible between the gateway servers GWS (steps S24-S28). Subsequently, the gateway server GWS transmits the notice signal of arrival of the mail containing the address information of the mail box with which the electronic mail was stored to packet subscriber-processing equipment PS (step S29). Furthermore, packet subscriber-processing equipment PS transmits the received notice signal of arrival of the mail to the migration machine MS (step S30).
[0044] The migration machine MS will transmit the connection-request signal which specified the address of the mail box contained in the signal concerned to packet subscriber-processing equipment PS, if the above-mentioned notice signal of arrival of the mail is received (step S31). This connection-request signal is transmitted to the gateway server GWS through packet subscriber-processing equipment PS (step S32). The gateway server GWS will transmit a connection-confirm reply signal to packet subscriber-processing equipment PS, if a connection-request signal is received (step S33). Packet subscriber-processing equipment PS transmits the received connection-confirm reply signal to the migration machine MS (step S34).
[0045] Subsequently, the gateway server GWS reads the electronic mail received from the above-mentioned IP server W from the address of a mail box specified by the above-mentioned connection-request signal, and transmits this electronic mail to packet subscriber-processing equipment PS (step S35). Packet subscriber-processing equipment PS will be transmitted to the migration machine MS which advanced the connection request concerned for this, if an electronic mail is received (step S36). Actuation of the above-mentioned steps S31-S36 is repeatedly performed according to the amount of data of the electronic mail which should be distributed to the migration machine MS from the IP server W.
[0046] In this way, if the migration machine MS receives an electronic mail, the notice of delivery to the gateway server GWS will be performed by the same sequence as the above-mentioned steps S12 and S13 (step S 37 38), and push type information distribution will be completed.
[0047] Moreover, if there is a notice of delivery of data from the migration machine MS to the gateway server GWS, the gateway server GWS will perform accounting to the information distribution concerned. About the detail of the accounting performed at this time, it mentions later.
[0048] ** In the 1st mode book operation gestalt of service by push type information distribution, there are two modes as service by push type information distribution. First, the 1st mode is explained. The 1st mode is service which distributes this electronic mail according to a demand of a user after accumulating the electronic mail transmitted from IP for the purpose, such as information offer, to the user who has finished registration procedure to IP beforehand to the 2nd mail box BOX2 and calling the corresponding user.
[0049] Drawing 6 is a conceptual diagram explaining the 1st mode. In this drawing, the user who desires service of information offer etc. to specific IP first operates the migration machine MS, accesses a network, and performs registration procedure beforehand to the IP server W (step S61). Although a user's subscriber phone number (namely, telephone number of the migration machine MS) is transmitted to the gateway server GWS by access at this time, the gateway server GWS changes the telephone number concerned into the user management number which is the identification information of this and the user who corresponds by 1 to 1 in customer Research and Data Processing Department U-MAX in order to avoid that this telephone number is sent out to the exterior of the migration packet

communication network MPN. To the IP server W, this user management number is transmitted from the gateway server GWS, and it is accumulated in the IP server W as a user's registration information (step S62).
[0050] And if information to offer to a user [finishing / registration] in the IP server W occurs, the IP server W concerned will constitute transmit data for this information from a format of an electronic mail, will add the user management number of the user [finishing / registration] who wants to provide this electronic mail with the 2nd address and information on a mail box BOX2, and will transmit to the gateway server GWS (step S63).
[0051] In customer Research and Data Processing Department U-MAX, the gateway server GWS changes the specified user management number into the corresponding telephone number, and applies a call to the migration machine MS of this telephone number while it will accumulate this in the 2nd mail box BOX2 of electronic mail Management Department M-MAX, if an electronic mail is received from the IP server W (step S64).
[0052] When the user of the migration machine MS which received this call desires reception of the information offered from the IP concerned, this user operates the migration machine MS, accesses the gateway server GWS, and demands download of an electronic mail (step S65). On the other hand, after the gateway server GWS judges the propriety of access to the 2nd mail box BOX2 by collating the telephone number corresponding to the user management number specified by the IP server W at the time of the telephone number of the migration machine MS which had the demand concerned in customer Research and Data Processing Department U-MAX, and electronic mail reception, it reads an electronic mail from this mail box BOX2, and transmits to the migration machine MS (steps S66 and S67). In this way, it becomes possible to perform information offer to the specific user who has registered with the IP server W.
[0053] ** the 2nd mode of service by push type information distribution, next the 2nd voice -- attach like and explain. the user who the 2nd mode accumulates the electronic mail transmitted from IP for the purpose, such as information offer, to a user with the attribute (attributes, such as sex, age, and the address) specified from IP in the 3rd mail box BOX3, and corresponds -- call appearance -- it is the service which distributes this electronic seal in a top according to a demand of a user the bottom.
[0054] Drawing 7 is a conceptual diagram explaining the 2nd mode. In this drawing, the user with the preparation which receives service of information offer from unspecified IP etc. first operates the migration machine MS, accesses a network, and performs registration procedure beforehand to the gateway server GWS (step S71). By access at this time, the telephone number of the migration machine MS is transmitted to the gateway server GWS, and this is accumulated in customer Research and Data Processing Department U-MAX of the gateway server GW as a user's registration information.
[0055] On the other hand, if information to offer to a user in the IP server W occurs, the IP server W concerned will add attribute data, such as sex for specifying a user, age, and the address, to an electronic mail, and will transmit to the gateway server GWS while it constitutes this information from a format of an electronic mail (step S72).
[0056] In customer Research and Data Processing Department U-MAX, the gateway server GWS performs matching with the attribute data added to this electronic mail, and each user's attribute data registered into the subscriber database UDB, and specifies an applicable user while it will accumulate this electronic mail in the 3rd mail box BOX3, if the electronic mail which added the above-mentioned attribute data from the IP server W is received. For example, supposing the attribute specified by the IP server W is "the man of 30 years-old cost who lives in Tokyo", out of the user registered into the subscriber database UDB, it will search the user applicable to this attribute, and will extract a user's searched telephone number. The gateway server GWS applies a call to the migration machine MS of the telephone number extracted in this way (step S73).
[0057] When the user of the migration machine MS which received this call wishes to have the reception of the information offered from IP, the user concerned operates the migration machine MS, accesses the gateway server GWS, and demands download of an electronic mail (step S74). On the other hand, the gateway server GWS transmits to the migration machine MS which read the electronic mail from the 3rd mail box BOX3, and had a demand, after judging the propriety of access to the 3rd mail box BOX3 by collating the telephone number of the migration machine MS which had the demand concerned in customer Research and Data Processing Department U-MAX, and the telephone number of the user who has finished the above-mentioned registration procedure (steps S75 and S76). In this way, it enables the IP server W to perform communications service to the user who wishes information offer in a user with the preparation which receives information offer from the unspecified IP server W.
[0058] B-2: Although there are telex rate accounting to communication service and charge accounting of information to

the communications service of IP as accounting accounting, this operation gestalt explains telex rate accounting as an example. Moreover, the accounting concerning this operation gestalt has user accounting charged to the user who received informational offer, and information offer entrepreneur accounting charged to IP which offered information. In this operation gestalt, it has managed by method which is different in whether it considers as user accounting the case of pull mold information distribution, and in the case of push type information distribution, or it considers as information offer entrepreneur accounting. Hereafter, each case is explained.

[0059] (1) In pull mold information distribution, generally, since information is offered according to an active demand of a user in pull mold information distribution, the direction of user accounting is concordance and a cone. However, it is assumed also when IP wants to offer information for nothing according to a demand of a user unspecified for the purpose, such as an advertisement advertisement, and the direction of information offer entrepreneur accounting is concordance and a cone in this case. Then, with this operation gestalt, in supposing that user accounting is applied in principle in pull mold information distribution and applying information offer entrepreneur accounting exceptionally, it registers IP used as the object into the subscriber database UDB beforehand. And the gateway server GWS extracts the list of URL of the IP server W with which information offer entrepreneur accounting is applied from the subscriber database UDB, and memorizes it in the memory in accounting Management Department P-MAX as an IP table for information offer entrepreneur accounting.

[0060] Drawing 8 is a flow chart which shows the accounting in pull mold information distribution. In this drawing, if a user operates the migration machine MS first and the predetermined IP server W is accessed, it will be confirmed whether when the gateway server GWS receives the confirmation-of-receipt signal from a user, it corresponds to the candidate IP for information offer entrepreneur accounting by which URL of the IP server W accessed by the user was listed in the above-mentioned table (step S101).

[0061] Here, if it does not correspond to the candidate IP for information offer entrepreneur accounting, user accounting is applied as a principle. In this case, accounting Management Department P-MAX of the gateway server GWS transmits the user management number of the user who received the information distribution concerned, and the enumerated data of the number of packets delivered and received to the accounting system BILL (step S102). The accounting system BILL computes a telex rate by carrying out the multiplication of the enumerated data and the unit price of a packet which were supplied from the gateway server GWS, and a bill is published to the user concerned specified by the user management number (step S103).

[0062] On the other hand, if URL of the IP server W accessed by the user corresponds to the candidate IP for information offer entrepreneur accounting, information offer entrepreneur accounting will be applied. In this case, accounting Management Department P-MAX of the gateway server GWS transmits the enumerated data of the number of packets delivered and received, and URL of the IP server W which received access to the accounting system BILL (step S104). The accounting system BILL computes a telex rate by carrying out the multiplication of the enumerated data and the unit price of a packet which were supplied from the gateway server GWS, and publishes a bill to IP (step S105).

[0063] (2) Explain the accounting the case of push type information distribution, next in push type information distribution. Drawing 9 is a flow chart which shows the accounting in push type information distribution. In this drawing, it recognizes that the gateway server GWS has a request of push type information distribution if the electronic mail from the IP server W is received in the 2nd mail box BOX2 or 3rd mail box BOX3, and determines to apply information offer entrepreneur accounting (step S201). That is, since the gestalt of the information offer tends to get used to information offer entrepreneur accounting in push type information distribution, in this operation gestalt, it is supposed that information offer entrepreneur accounting will be applied uniformly. Of course, what is necessary is it to be possible to apply user accounting in push type information distribution, and to judge information offer entrepreneur accounting or user accounting, and just to perform processing corresponding to user accounting like the case of the above-mentioned pull mold information distribution, in that case, based on the contents of a setting of the subscriber database UDB, in user accounting.

[0064] Subsequently, although the gateway server GWS distributes the electronic mail received from the IP server W to the migration machine MS which specified the user set as the object of information offer as above-mentioned, applied the call to that migration machine MS, and had the demand, in information offer entrepreneur accounting, it does not perform user accounting to this distribution, but is altogether charged to IP. In this case, accounting Management Department P-MAX of the gateway server GWS confirms whether the gestalt of accounting to the IP server W

concerned is the meter-rate system, or it is a flat rate system with reference to IP registration information accumulated in the subscriber database UDB (step S202).
[0065] When the gestalt of accounting is the meter-rate system, accounting Management Department P-MAX of the gateway server GWS transmits the enumerated data of the number of packets delivered and received at the time of transmission of an electronic mail, and URL of the IP server W which is the transmitting origin of an electronic mail to the accounting system BILL (step S203). The accounting system BILL computes a telex rate by carrying out the multiplication of the enumerated data and the unit price of a packet which were supplied from the gateway server GWS, and publishes a bill to IP (step S204).
[0066] On the other hand, when the gestalt of accounting is a flat rate system, accounting Management Department P-MAX of the gateway server GWS is the timing which received the electronic mail from the IP server W, and transmits URL of the IP server W to the accounting system BILL, and accounting to the IP concerned is directed (step S205). In response, the accounting system BILL publishes the bill of the fixed amount to directed IP (step S206).
[0067] In addition, when the accounting gestalt of a flat rate system is accounting to fixed periods, such as a moon unit, if an electronic mail arrives from the IP server W to the gateway server GWS, accounting to IP will be performed irrespective of no. Therefore, there is no cooperation with the gateway server GWS and the accounting system BILL in this case, and the accounting system BILL publishes a periodical bill to IP autonomously.
[0068] C: Like modification previous statement, this invention is not restricted to the operation gestalt mentioned above. It is the range of the technical thought of this invention, for example, the following various modification etc. is possible.
(1) Although aimed at the case where information offer is performed from other networks (1st information communication network), such as Internet INET, to the migration machine MS belonging to the migration packet communication network MPN, with the operation gestalt, this invention can be applied also when performing information offer from such a network to the migration machine MS belonging to the migration packet communication network MPN, if the global network replaced with Internet INET, for example exists in others. In this case, what is necessary is just to specify the information resource of the IP server W with the absolute address which replaces with URL and is defined on the global network applied. Moreover, the fixed network which holds not only the migration packet communication network MPN but a built-in end can apply the network (2nd information communication network) where a user terminal belongs, also when performing information offer to the user terminal belonging to other local networks. Furthermore, the communications protocol which could apply this invention not only to a packet exchange network but to the data communication network which performs data communication in the form of others, and was shown with the operation gestalt is only an example. Moreover, the format of the data distributed from IP server may also adopt the format of not only HTML but others. For example, if the information distributed is only text data, of course, there will be no need of adopting the data format corresponding to multimedia like HTML.
[0069] (2) With an operation gestalt, although telex rate accounting to pull mold information information distribution was uniformly made into the meter-rate system, the information which shows the meter-rate system or a flat rate system like [not only in this but push type information distribution] is registered into the subscriber database UDB, and it may be made to perform accounting according to the gestalt of each accounting. When adopting a flat rate system in pull mold information information distribution, like the case of push type information distribution, are concerned, there is nothing to the number of packets delivered and received, and the fixed amount is charged to a user or IP. Moreover, although the gestalt of accounting was set up for every IP in IP registration information file of the subscriber database UDB with the operation gestalt, it is possible not only this but to set up for every user in a subscriber registration information file. Moreover, what is necessary is to set up the accounting gestalt for every user about each IP in IP registration information file or just to set up the accounting gestalt for every IP about each user in a subscriber registration information file to set up an accounting gestalt for every IP and every user.
[0070] (3) Although only telex rate accounting was explained with the operation gestalt since it was easy, this invention is applicable similarly about charge accounting of information. However, various accounting gestalten. such as charging according to the number of cases of the electronic mail which does not carry out accounting corresponding to the number of packets delivered and received like telex rate accounting, for example, is delivered and received, when adopting the meter-rate system as charge accounting of information, or adding the amount-of-money information over the e-mail distribution to the electronic mail transmitted from the IP server W to change the amount of money with an issue, and sending to the gateway server GWS, are applicable. Moreover, in charge accounting of information, only

user accounting is performed and it may not be made not to perform information offer entrepreneur accounting. In this case, all the accounting gestalten in IP registration information file of the subscriber database UDB may be set as user accounting, and it may not be made not to perform accounting about IP to which a setup of information offer entrepreneur accounting is carried out.

[0071] (4) Although determined with the operation gestalt by the gateway server's GWS holding the list for [IP] information offer entrepreneur accounting for the accounting gestalt in pull mold information distribution, and referring to this, the information which adds a tag to the HTML data transmitted not only from this but from the IP server W, and shows whether it is information offer entrepreneur accounting adds, and it may make the gateway server GWS determine an accounting gestalt based on this information.

[0072] (5) It does not pass over the network configuration of an operation gestalt to an example, and, of course, this invention is not limited to this configuration. For example, it may be made to carry out the functional assignment of dividing into the node which takes charge of the conversion function of a communications protocol for the gateway server GWS, and the node which takes charge of other functions, and constituting etc. by two or more nodes.

[0073] (6) the 1st voice of service according to push type information distribution at an operation gestalt -- although it sets like and the IP server W managed the information on user registration over IP, you may make it, as for this invention, the gateway server GWS take charge of the information management of this user registration For example, transmit to the migration machine MS of the user concerned, and it is made display the HTML data with which the gateway server GWS prepared only the dialogue screen (henceforth, registration screen) to which register operation is urged in a series of dialogue screens displayed in case a user performs registration procedure to IP, as shown in drawing 10 , and user registration information is accumulated and you may make it manage it based on a user's register operation by the gateway server GWS. In this case, it can be grasped by the gateway server GWS based on address information, such as URL specified when a user accessed the IP server W, to which IP server W the user is doing registration procedure. Therefore, if the gateway server GWS matches the HTML data which offer the registration screen with address information, such as URL, and they are held about two or more IP servers W, it can specify the HTML data which should be transmitted to a user's migration machine MS as a registration screen based on address information, such as URL specified by a user.

[0074] (7) If not only this but the migration machine MS receives incoming call appearance, the gateway server GWS is accessed automatically, without waiting for directions actuation of a user, and you may make it download an electronic mail, although the user of the migration machine MS which received the incoming call appearance of an electronic mail operates the migration machine MS concerned in push type information distribution, the gateway server GWS is accessed and the electronic mail was downloaded with the operation gestalt.

[Translation done.]

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the block diagram showing the whole system configuration concerning an operation gestalt.
[Drawing 2] It is the data format Fig. showing the contents of the subscriber database concerning this operation gestalt.
[Drawing 3] It is the block diagram showing the configuration of the gateway server concerning this operation gestalt.
[Drawing 4] It is the sequence diagram showing basic actuation of the pull mold information distribution concerning this operation gestalt.
[Drawing 5] It is the sequence diagram showing basic actuation of the push type information distribution concerning this operation gestalt.
[Drawing 6] It is the conceptual diagram showing the 1st mode of service by this push type information distribution.
[Drawing 7] It is the conceptual diagram showing the 2nd mode of service by this push type information distribution.
[Drawing 8] It is the flow chart which shows the accounting in this pull mold information distribution.
[Drawing 9] It is the flow chart which shows the accounting in this push type information distribution.
[Drawing 10] It is a screen transition diagram for explaining the modification of this invention.
[Description of Notations]
BILL Accounting system
BOX1 The 1st mail box
BOX2 The 2nd mail box
BOX3 The 3rd mail box
BS Base station
GWS Gateway server
BUS Bus
I-MAX System control section (a receiving means, a call means, a transmitting means, protocol conversion means)
M-MAX Electronic mail Management Department (are recording means)
P-MAX Accounting Management Department
U-MAX Customer Research and Data Processing Department (a call means, a storage means, a specific means, address translation means)
INET Internet
MS Migration machine
MPN Migration packet communication network
PS Packet subscriber-processing equipment
UDB Subscriber database
W, W-MAX IP server

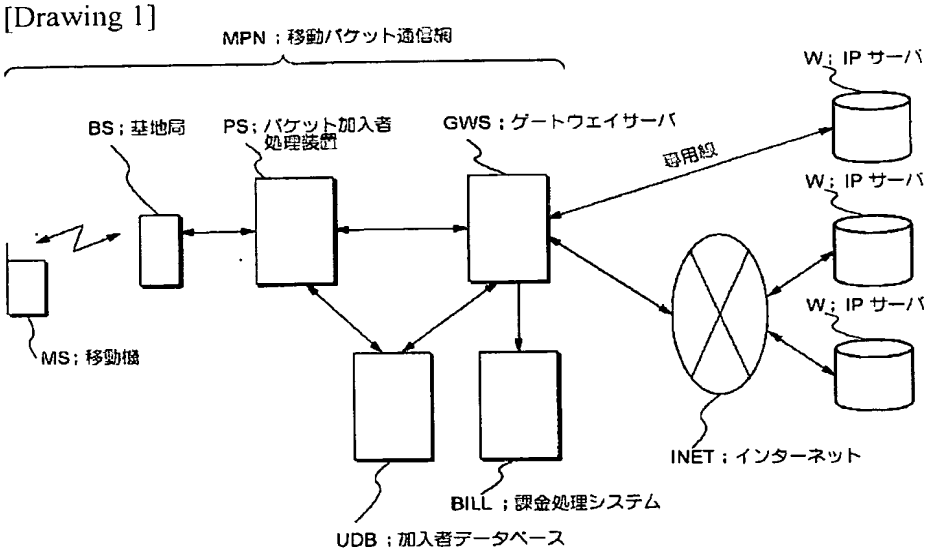
[Translation done.]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

[Drawing 1]



[Drawing 2]

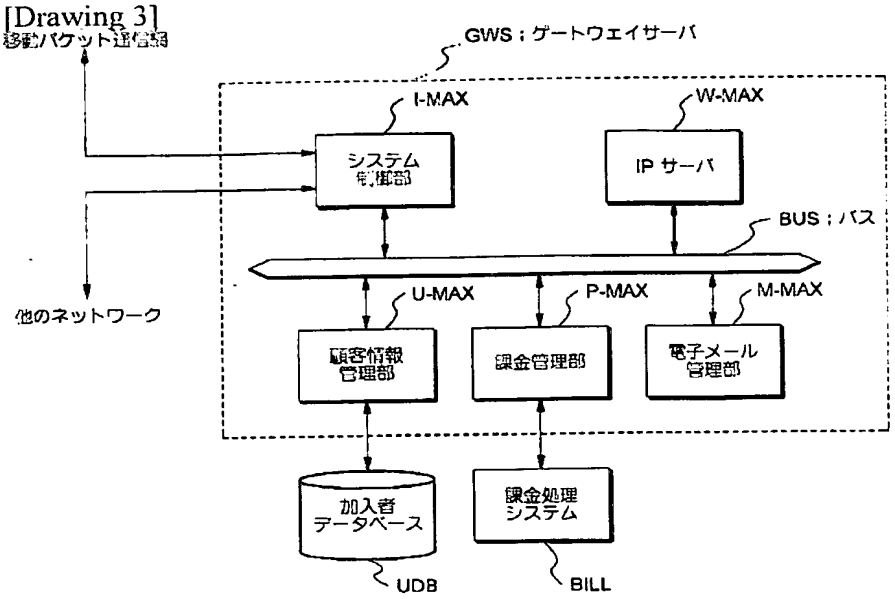
加入者登録情報ファイル

電話番号	氏 名	性 別	生年月日	住 所	
.....	.....	...	.....	.....	
.....	.....	...	.....	.....	
.....	.....	...	.....	.....	
.....	.....	...	.....	.....	
.....	.....	...	.....	.....	
.....	.....	...	.....	.....	
.....	.....	...	.....	.....	

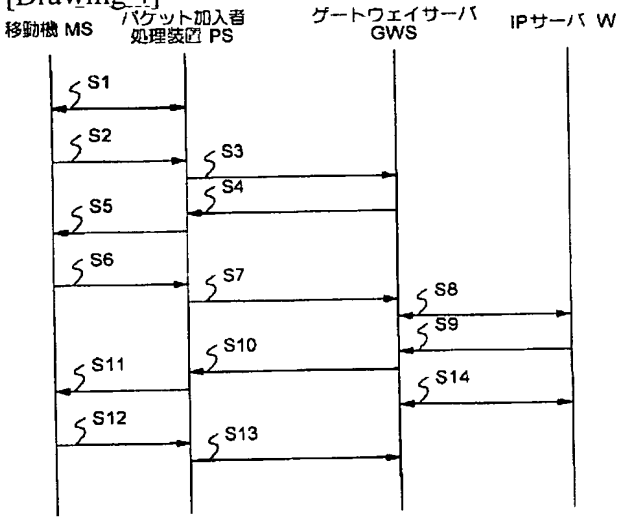
IP 登録情報ファイル

事業者名	URL	情報提供事業者課金／ユーザ課金	従量制／定額制	
.....	.....	.....	.....	
.....	.....	.....	.....	
.....	.....	.....	.....	
.....	.....	.....	.....	
.....	.....	.....	.....	

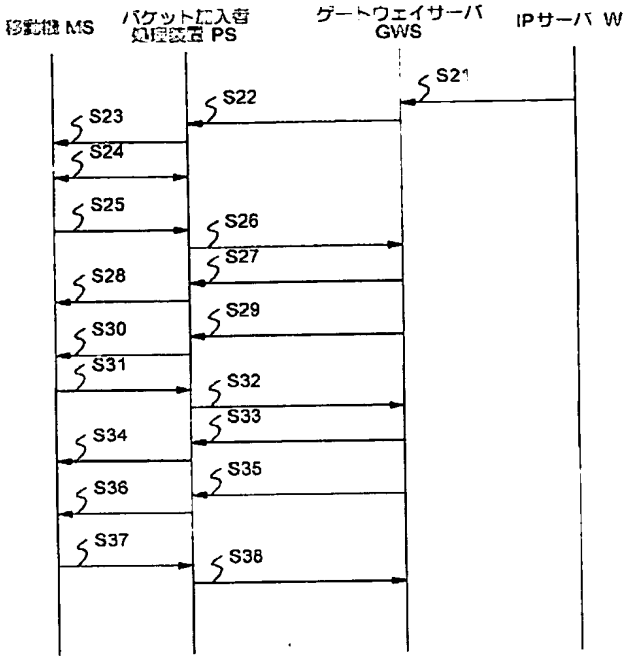
[Drawing 3]



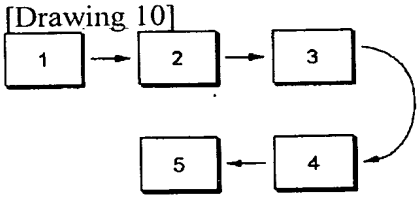
[Drawing 4]



[Drawing 5]

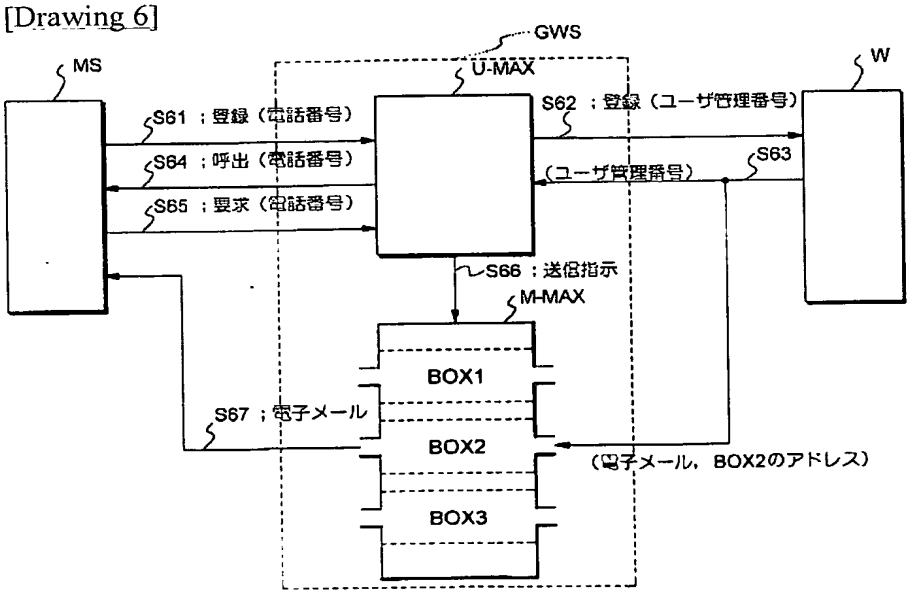


[Drawing 10]

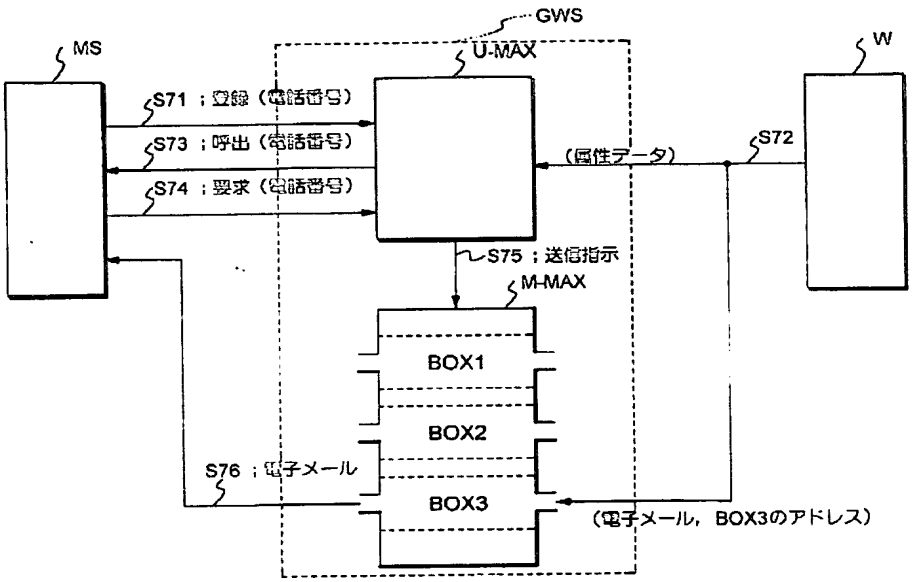


1～5 ；ユーザが登録手続を行う際に表示される一連の対話画面
4 ；ゲートウェイサーバGWSが提供する登録画面

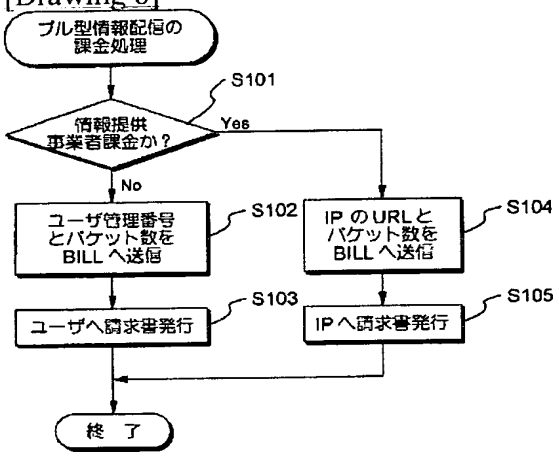
[Drawing 6]



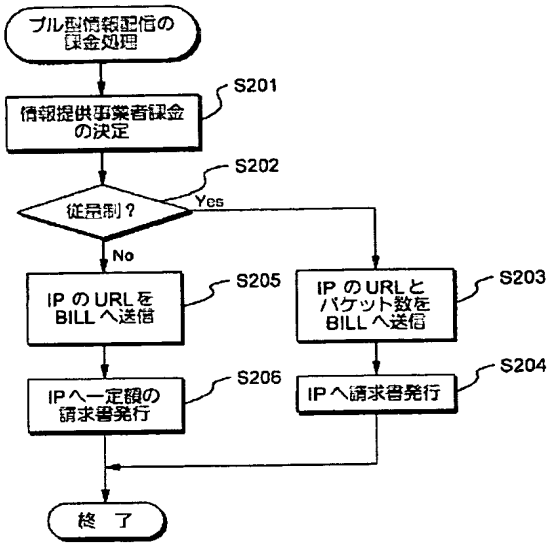
[Drawing 7]



[Drawing 8]



[Drawing 9]



[Translation done.]